

Appl. No. 09/939,163
Amdt. Dated December 30, 2003
Reply to Office Action of October 3, 2003

• • R E M A R K S / A R G U M E N T S • •

The Official Action of October 3, 2003 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks, are believed to be sufficient to place the application into condition for allowance.

By the present amendment independent claims 1 and 13 have been changed to recite that the shape holding layer and the body fluid retaining layers have surface pattern configurations defined by the barriers and exclusive of said openings which surface pattern configurations are substantially coextensive.

Support for this change to the claims can be readily found in the drawings, particularly Figs. 1 and 2.

Also by the present amendment, independent claims 1 and 13 have been change to recite that the thermoplastic synthetic resin fibers of the shape holding layer are hot welded together at contact points between the thermoplastic synthetic resin fibers so as to resist collapsing under pressure and that the thermoplastic synthetic resin fibers of the body fluid retaining layer are hot welded together at contact points between the thermoplastic synthetic resin fibers so as to resist collapsing.

Support for this change to the claims can be found in the first full paragraph on page 3 of applicants' specification and in the second full paragraph on page 9 of applicants' specification.

Entry of the changes to the claims is respectfully requested.

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Claims 1-13 are pending in this application.

Claims 1-3, 5, 7-9 and 11 stand rejected under U.S.C. §102(e) as being anticipated by U.S. 6,395,957 to Chen et al.

Claims 1, 3, 6, 7-9 and 11-13 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,274,218 to Shimizu.

Claims 4 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Chen et al, in view of U.S. Patent No. 5,479,335 to Colbert.

Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Chen et al. in view of U.S. Patent No. 5,490,846 to Ellis et al.

Claims 4 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shimizu in view of Colbert.

Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Shimizu in view of Ellis et al.

The Examiner has relied upon Chen et al. as disclosing a body fluid absorbent panel that comprises a fibrous web having a compression resilience, comprising a plurality of openings 27 extending therethrough, with barriers surrounding and defining the openings 27. The Examiner has stated that the barriers comprise a shape holding layer 2 and a body fluid retaining layer 1.

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The "shape holding layer 2" (per the Examiner's interpretation) of Chen et al. comprises hydrophobic material that has been deposited on the uppermost regions 3 of the contoured hydrophilic base sheet 1 of Chen et al.

The "openings 27" which the Examiner has relied upon Chen et al. as teaching, are disclosed as being perforations that are formed in the low portions of the contoured base sheet. (See Fig. 5).

With regard to the previous recitation in claim 1 that the shape holding layer and the body fluid retaining layers have patterned surface areas that are substantially coextensive, the Examiner has stated that:

The shape holding layer 2 and body fluid retaining layer 1 comprise surface areas that are coextensive, i.e. the entire surface of the article, as shown in figure 6.

It seems as though the Examiner is construing the "entire" surfaces of the "shape holding layer 2" and the "fluid retaining payer 1" as being coextensive.

In order to more clearly describe applicants' invention in the claims (as was the intention in applicants' previous amendment), claim 1 has been changed to recite that the shape holding layer and the body fluid retaining layers have surface pattern configurations defined by the barriers and exclusive of said openings which surface pattern configurations are substantially coextensive.

Rather that recite that the "entire" surfaces of the shape holding layer and the body fluid retaining layers are coextensive, applicants' claims require that the configuration of the layers as defined by, but exclusive of, the openings are coextensive. The configuration "defined by the openings" is the pattern of the barriers that surround the openings.

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Claim 1 requires that the configuration or pattern of the barriers of each of the shape holding layer and body fluid retaining layer are substantially coextensive.

Figure 6 of Chen et al. is stated to show how the "hydrophilic regions are isolated from one another." This means that in Fig. 6 the square shapes (which are isolated from one another) are hydrophilic regions and the grid pattern shown in Fig. 6 has to be the hydrophobic material 2 that is deposited on the base sheet 1.

Chen et al. does not include openings in the backsheet shown in Fig. 6.

Accordingly, the backsheet of Fig. 6 does not include applicants' claimed shape holding layer and the body fluid retaining layers that have surface pattern configurations defined by the barriers and exclusive of said openings which surface pattern configurations are substantially coextensive.

Accordingly, Chen et al. cannot be relied upon as anticipating or otherwise suggesting applicants' claimed invention.

The Examiner has relied upon Shimizu as disclosing a body fluid absorbent panel 2 that comprises a fibrous web having a plurality of opening 6 and barriers surrounding and defining openings 6. The Examiner states that the body fluid absorbent panel 2 of Shimizu comprises a shape holding layer 11 formed from a plurality of thermoplastic synthetic resin fibers.

The Examiner states that the shape holding layer 11 and body fluid retaining layer 12 have patterned surface areas that are coextensive, as shown in figures 1 and 2.

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By the present amendment, independent claim 1 has been changed to recite that the thermoplastic synthetic resin fibers of the shape holding layer are hot welded together at contact points between the thermoplastic synthetic resin fibers so as to resist collapsing under pressure and that the thermoplastic synthetic resin fibers of the body fluid retaining layer are hot welded together at contact points between the thermoplastic synthetic resin fibers so as to resist collapsing.

A careful review of Shimizu (assigned to the same assignee as the present application) will reveal that the present invention patently distinguishes over Shimizu.

Shimizu is directed at addressing and solving a specific problem in which body fluids flow backwards from an absorbent core toward a wearer's skin in an absorbent article that is provided with a topsheet having a plurality of liquid passages extending therethrough.

Shimizu solves this problem by providing a topsheet that includes an upper fibrous layer and a lower fibrous layer in which the density progressively increases from the upper fibrous layer and a lower fibrous layer.

Shimizu teaches that both the upper fibrous layer and a lower fibrous layer can be webs of thermoplastic fibers that are "mechanically entangled or heat-sealed together" or more preferably nonwoven fabrics.

It is important to not that, as taught by Shimizu the upper fibrous layer and a lower fibrous layer can be mechanically entangled "or" heat-sealed.

In the present invention the shape holding layer and the body fluid retaining layer are configured to prevent collapsing of the absorbent panel. In order to prevent such collapsing, the

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thermoplastic synthetic resin fibers of the shape holding layer are hot welded together at contact points between the thermoplastic synthetic resin fibers to resist collapsing under pressure and the thermoplastic synthetic resin fibers of the body fluid retaining layer are hot welded together at contact points between the thermoplastic synthetic resin fibers to resist collapsing.

It is submitted that applicants' manner of hot welding the thermoplastic synthetic resin fibers of the shape holding layer and of the body fluid retaining layer together at contact points between the thermoplastic synthetic resin fibers to resist collapsing is not taught or conceived in any way or for any purpose by Shimizu.

Shimizu teaches mechanically entangling or "heat-sealing" the fibers of the upper and lower layers.

"Heat-sealing" the fibers is not the same as heat welding the fibers at contact points in a manner that resists collapsing according to applicants' invention.

Moreover by equating mechanical entangling with heat-sealing, Shimizu provides evidence of a complete lack of appreciation of applicants' invention. That is, since mechanically entangling the fibers would not prevent collapsing of the layers, it follows that the heat-sealing taught by Shimizu does not involve or require hot welding the fibers at contacts thereof to prevent collapsing if the layers.

As the Examiner is not doubt aware "heat-sealing" techniques typically involve the application of pressure and "sealing" at outer areas of an article.

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Applicants' manner of hot-welding the thermoplastic synthetic resin fibers of the shape holding layer and of the body fluid retaining layer together at contact points between the thermoplastic synthetic resin fibers prevents collapsing of the layers and overall panel.

Shimizu does not teach such a structure or require such a function.

Rather, as discussed above, Shimizu is concerned with the relative densities of the upper and lower fibrous layers in order to address fluid flow properties and in particular to prevent body fluids from flowing backward from an absorbent core toward a wearer's skin in an absorbent article.

It is accordingly submitted that Shimizu fails to teach or suggest the structure of applicants' invention or the function which is related to the structural differences between applicants' invention and the prior art.

The Examiner will note that Shimizu does not mention any concerns or take any precautions to prevent the upper and lower fibrous layers from collapsing. Moreover, the Examiner will note that the mechanical entangling taught by Shimizu would certainly not prevent the upper and lower fibrous layers from collapsing.

Accordingly, it is submitted that Shimizu does not teach a structure which prevents the upper and lower fibrous layers from collapsing.

The Examiner has relied upon Colbert as teaching a fibrous web comprising a plurality of opening surrounding barriers and a second panel 4, also comprising a plurality of openings surrounded by barriers placed upon the first panel such that the second panes 4 divides the openings of the first panel.

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Colbert is directed to an absorbent device that has a low fluid "wet-back" and good surface cleanliness and resistance to staining. The structure depicted in Fig. 3 of Colbert comprises a first film or net layer 2 and an underlying film or net 4.

The film or net layers 2 and 4 of Colbert are disclosed as being formed from a number of possible materials at column 4, line 43 through column 5, line 32, none of which can be considered as comprising a fibrous web or a fibrous assembly as required by applicant's claimed panels.

Accordingly, it is submitted that the Examiner's further reliance upon Colbert does not address or overcome the distinctions between the present invention and Chen et al. or Shimizu.

Moreover the proposed combination of Chen et al. and Colbert and Shimizu and Colbert is improper since Colbert fails to teach absorbent panel layers as required by the primary references.

The Examiner has relied upon Ellis et al. as teaching a body fluid absorbent panel having a compression resilience of at least 60%.

Ellis et al. teaches that the "fibrous nonwoven web of the present invention is used as a surge layer disposed between the body side liner and the absorbent core."

It is not seem how the teachings of the surge layer in Ellis et al. suggest that the layers of Chen et al. or Shimizu should have a compression resilience of at least 60%.

Rather it appears that the Examiner has relied upon applicants' own teaching of a compression resilience of at least 60% to locate this teaching in Ellis et al. and has fabricated motivation not taught or suggested by the prior art in an attempt to combine the teachings of Ellis et al. with Chen et al. and Shimizu.

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Note, neither Chen et al. nor Shimizu mention any problems with their articles collapsing.

Therefore, there is no motivation to combine the teachings of Ellis et al. with Chen et al. and Shimizu "so that the panel does not collapse during use" as the Examiner states.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §102 as anticipating applicants' claimed invention.

Moreover, the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

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If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved; the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



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